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Mary L. Beck
Henderson State University

Peggy Rae Dorris
Henderson State University

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A CONTINUATION OF SPIDER RESEARCH IN ARKANSAS: EAST CENTRAL OZARK MOUNTAIN AREA

MARY BECK and PEGGY RAE DORRIS

Department of Biology
Henderson State University
Arkadelphia, Arkansas 71923

ABSTRACT

A preliminary study of spiders concentrated in the eastern section of the Ozark Mountain Area was made for the purpose of determining spider fauna in an on-going research effort to elucidate the total spider fauna of the entire state. At present, 247 species of spiders have been reported.

INTRODUCTION

For the past 15 years, research has been pursued concerning the spider fauna of Arkansas. Dorris (1968, 1969, 1970, 1971, 1972, 1977) has made extensive studies of the spider fauna of two physiographic areas of Arkansas. At the present time, 247 species of spiders have been reported for Arkansas. This is the third of a series of studies which will include: Ozark Mountains, Arkansas River Valley, Ouachita Mountains, Gulf Coastal Plain, Delta and Crowley's Ridge. The east central portion of the Ozark Mountain Area is included in this study which revealed a total of 84 species, five of which were new for the state.

MATERIALS AND METHODS

Several methods of collecting were used in the east central Ozark Mountain Area. They were (a) heavy duty sweep net to sweep grasses and heavy brush, (b) wire mesh sieve to sift leaf litter, (c) hatchet for chopping bark off trees, (d) hand picking from bushes, ground and old dwellings or other related places (e) mud dauber nest collections to reveal paralyzed spiders captured by mud daubers, (f) night spot-lighting.

Collections were made primarily between the hours of 9 A.M. and 5 P.M. Spiders were placed in screw cap vials with 75% ethyl alcohol. To ensure collection of nocturnal species, one night collection was made at each check station. The number of specimens collected decreased as the temperature and humidity increased. Spiders were engaged in numerous and varied activities. Orb weavers were in the process of web construction, capturing prey, or sitting at the hub of their web awaiting prey. Funnel web weavers were also awaiting prey at the mouth of their funnels. Hunting forms which do not spin webs were stalking or eating prey. Activities of individuals could not be ascertained when captured with a sweep net.

Habitats used in the Table can be described in the following manner: forests, mixed deciduous and pine; buildings, inhabited dwellings, abandoned dwellings, barns, and other out buildings; cave, Blanchard Springs Caverns; roadside, bare ground and mixed grasses, and fields, mixed grasses, shrubs, and herbs.

Table. Data concerning spider collections made in the Ozark Mountains.

Family	Date	Station Code**	Collecting Code***	Habitat
Atteridae				
<i>*Metranda unicolor</i> (West)	7/3/79	5	F	Field
Therididae				
<i>Diplocephala hantz</i> (Walckenaer)	9/16/79	1a	F	Roadside
	9/29/80	1a	F	Roadside
Uloboridae				
<i>Uloborus plumosus</i> (Walckenaer)	7/17/81	5	F	Field
<i>Myrioneta ornatus</i> (West)	7/27/81	2	SH	Roadside
Euctenidae				
<i>Euctenus subulata</i> (West)	7/27/81	2	SH	Roadside
Aneuridae				
<i>Tilapia americana</i> Herton	7/27/81	2	SH	Roadside
Limonetidae				
<i>Limoneta curvipes</i> Gertsch & Malak	9/16/79	1a	F	Building
Leptonetidae				
<i>*Leptoneta arkana</i> Gertsch	5/12/79	1b	F	Cave
Pholcidae				
<i>Pholcus phalangodes</i> (Fuesslin)	7/27/81	2	SH	Roadside
Therididae				
<i>Latrodectus mactans</i> (Fabricius)	7/4/81	1a	NO	Building
	7/27/81	2	F	Roadside
<i>Achaeana tepidariorum</i> (Nocchi)	2/10/79	1	NO	Building
	8/2/80	2	SH	Roadside
	5/15/81	3	F	Roadside
	5/12/81	1b	F	Cave
	8/1/81	5	SH	Roadside
	7/4/81	1a	F	Forest
<i>Stasmodium triangulum</i> (Walckenaer)	2/10/79	1	F	Roadside
Linyphiidae				
<i>Linyphia marginata</i> (Nocchi)	7/4/81	1b	F	Forest
	7/27/81	2	SH	Roadside
<i>Protonetia pyramidalis</i> (Walckenaer)	7/27/81	2	SH	Roadside
<i>Meioneta fabra</i> (Keyserling)	6/2/81	4	SH	Roadside
Micryphantidae				
<i>Cassidiximus similis</i> (Thorell)	7/27/81	2	SH	Roadside
Araneidae				
<i>Castianeoba uliginosa</i> (Walckenaer)	7/27/81	1	F	Forest
<i>Micrathena gracilis</i> (Walckenaer)	2/15/81	5	F	Roadside
<i>Micrathena sagittata</i> (Walckenaer)	7/14/81	5	F	Roadside

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Table Continued.

Taxon	Date	Station Code**	Collecting Code***	Habitat	Taxon	Date	Station Code**	Collecting Code***	Habitat
<i>Aspilota</i>					<i>Clichonidae</i>				
<i>Aspilota aurantia</i> Lucas	7/4/81	1	F	Forest	<i>Chirocarthium incisum</i> (Hentz)	7/27/81	2	SN	Roadside
	5/31/81	2	F	Forest	<i>Clichonides obscurus</i> (Hentz)	2/10/79	1	F	Roadside
	7/27/81	2	SN	Roadside					
<i>Aspilota trifasciata</i> (Thorell)	5/31/81	1	F	Forest	<i>Thomisidae</i>				
<i>Aspilota gibberna</i> (Hentz)	7/27/81	2	SN	Roadside	<i>Wismenega asperatus</i> (Hentz)	6/3/81	4	SN	Roadside
<i>Aspilota stellata</i> (Wasm.)	7/27/81	2	SN	Roadside		7/27/81	2	SN	Roadside
<i>Aspilota shastana</i> (Walckenaer)	7/27/81	2	F	Roadside	<i>Wismenega oblongus</i> (Keyserling)	7/27/81	2	SN	Roadside
<i>Aspilota areolata</i> (Walckenaer)	7/27/81	2	SN	Roadside	<i>Wismenoides formosus</i> (Walckenaer)	7/27/81	2	SN	Roadside
<i>Aspilota labyriotheca</i> (Hentz)	5/22/81	2	SN	Roadside	<i>Stenomacrus parvulus</i> (Hentz)	6/3/81	4	SN	Roadside
<i>Aspilota diruta</i> (Hentz)	7/27/81	2	SN	Roadside	<i>Cyclocarabus lanta</i> (Walckenaer)	6/3/81	4	SN	Roadside
<i>Aspilota lamellosa</i> (Walckenaer)	7/27/81	2	SN	Roadside	<i>Stylisma tripustatus</i> Keyserling	7/27/81	2	SN	Roadside
<i>Cyclosa cincta</i> (Dallas)	5/1/81	1	SN	Field	<i>Stylisma pulvum</i> Keyserling	7/27/81	2	SN	Roadside
<i>Stenomacrus ardens</i> (Walckenaer)	7/27/81	2	SN	Roadside	<i>Stylisma elegans</i> Keyserling	6/3/81	5	SN	Roadside
	6/3/81	2	SN	Roadside	<i>Stylisma lamellatus</i> (Walckenaer)	6/3/81	5	SN	Roadside
<i>Aspilota diaphana</i> (Hentz)	7/27/81	2	SN	Roadside	<i>Philodromidae</i>				
<i>Eucema curvata</i> (Clerck)	7/4/81	1	F	Roadside	<i>Philodromus vulgaris</i> Hentz	7/16/81	5	F	Roadside
	7/14/81	5	F	Roadside	<i>Philodromus imbellis</i> Keyserling	6/3/81	4	SN	Roadside
<i>Tetragnathidae</i>					<i>Triaulus oblongus</i> (Walckenaer)	5/1/81	1	SN	Field
<i>Tetragnatha laboriosa</i> Hentz	5/1/81	1	SN	Field					
	7/27/81	2	SN	Roadside	<i>Salticidae</i>				
<i>Tetragnatha versicolor</i> Walckenaer	3/15/81	4	F	Roadside	<i>Phidippus hoyi</i> (G. & E. Peckham)	7/27/81	2	SN	Roadside
	6/3/81	4	SN	Roadside	<i>Phidippus insolens</i> (Walckenaer)	5/1/81	2	F	Roadside
	7/27/81	2	SN	Roadside	<i>Phidippus gibbi</i> (G. & E. Peckham)	7/27/81	2	SN	Roadside
<i>Tetragnatha stevensi</i> Emerton	6/3/81	4	SN	Roadside	<i>Phidippus yungis</i> (G. & E. Peckham)	3/15/81	3	F	Roadside
	7/27/81	2	SN	Roadside	<i>Hentzia virgata</i> (Hentz)	7/27/81	2	SN	Roadside
<i>Tetragnatha elongata</i> Walckenaer	6/3/81	4	SN	Roadside	<i>Metacryptus undata</i> (DeGeer)	5/31/81	2	F	Roadside
						7/27/81	3	F	Roadside
<i>Apeltesidae</i>					<i>Phidippus fasciatus</i> (Hentz)	7/27/81	3	F	Roadside
<i>Oreca medicinalis</i> (Hentz)	3/15/81	3	F	Roadside	<i>Phidippus iniquus</i> (Walckenaer)	6/3/81	4	SN	Roadside
<i>Rimidae</i>					<i>Phidippus audax</i> (Hentz)	2/10/79	1	F	Roadside
<i>Rimeta curvatus</i> Chamberlin	6/3/81	4	SN	Roadside		3/15/81	4	SN	Roadside
	7/4/81	1b	F	Forest		7/27/81	2	SN	Roadside
<i>Phidippidae</i>					<i>Phidippus porporatus</i> Keyserling	5/27/81	2	SN	Roadside
<i>Dolomedes trilon</i> (Walckenaer)	3/15/81	1	F	Roadside	<i>Phidippus rimator</i> (Walckenaer)	7/27/81	2	SN	Roadside
<i>Zinnarion pax</i> (Walckenaer)	7/27/81	2	SN	Roadside	<i>Eris marginata</i> (Walckenaer)	7/27/81	2	SN	Roadside
<i>Lyoniidae</i>					<i>Eris aurantia</i> (Lucas)	7/14/81	5	SN	Roadside
<i>Trochosa texicola</i> (Thorell)	2/10/79	1	F	Roadside	<i>Metaphidippus gentryorum</i> (Walckenaer)	2/10/79	1	F	Roadside
	7/27/81	2	F	Roadside	<i>Metaphidippus galathos</i> (Walckenaer)	7/27/81	2	SN	Roadside
<i>Parfona distincta</i> (Blackwall)	3/14/81	2	F	Roadside					
<i>Parfona exata</i> Banks	5/31/81	2	F	Roadside	<i>Salticidae</i>				
<i>Parfona pilvina</i> (Hentz)	2/10/79	1	F	Roadside	<i>Metaphidippus flaviceps</i> Kaston	7/27/81	2	SN	Roadside
<i>Parfona saxatilis</i> (Hentz)	2/10/79	1	F	Roadside					
<i>Lyones curvirostris</i> (Walckenaer)	6/3/81	1a	F	Roadside					
<i>Lyones punctulata</i> Hentz	6/3/81	5	SN	Roadside					
<i>Lyones rubida</i> Walckenaer	6/3/81	5	SN	Roadside					
	6/3/81	4	SN	Roadside					
	7/14/81	5	F	Roadside					
	7/27/81	2	SN	Roadside					
<i>Lyones halim</i> Walckenaer	6/3/81	5	SN	Roadside					
<i>Lyones shawi</i> Keyserling	6/3/81	5	F	Roadside					
	7/14/81	5	F	Roadside					
<i>Oxygidae</i>									
<i>Phoxipha viridans</i> (Hentz)	7/27/81	2	SN	Roadside					
<i>Oxygus scitulus</i> (Hentz)	5/1/81	1	SN	Field					
	6/3/81	4	SN	Roadside					
	7/27/81	2	SN	Roadside					
<i>Omphosidae</i>									
<i>Omphis villosus</i> (Hentz)	3/15/81	4	F	Roadside					
<i>Omphis fallens</i> Chambers	3/15/81	4	F	Roadside					

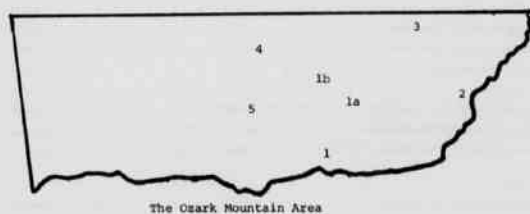
*Species not published prior to the present collection

**1. Water Springs
 1a. Mountain View
 1b. Blanchard Springs Caverns
 2. Black Rock
 3. Ramoth Springs
 4. Bull Shoals
 5. Buffalo Point

***SN-South Hill
 F-Field Flocking
 SN-South-Side nests
 S-Sites

For complete coverage of the east central section of the Ozark Mountain Area, check stations were set up in the northern, western, southern, and eastern sections of this area. Check points were covered from February, 1979 through August, 1981, and each was checked four or more times during the period to ensure complete coverage; sub-stations were checked one to three times (Figure).

Names used are those employed by Comstock (1948), Kaston and Kaston (1953) and Gertsch (1974). The arrangement followed is that of Kaston and Kaston (1972) and Kaston (1948).



The numbers represent the locations of the stations which were checked.

- | | |
|-------------------------------|--------------------|
| 1. Heber Springs | 3. Mammoth Springs |
| 1a. Mountain View | 4. Bull Shoals |
| 1b. Blanchard Springs Caverns | 5. Buffalo Point |
| 2. Black Rock | |

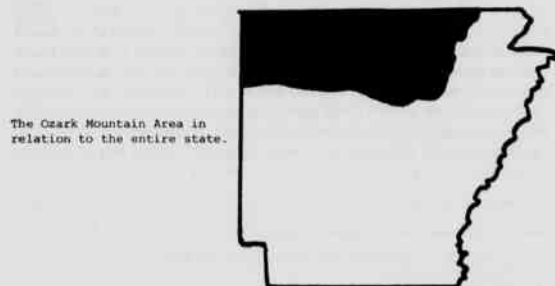


Figure. Map of Ozark Mountain Area showing check stations.

RESULTS AND DISCUSSION

A total of 23 families, 62 genera, and 84 species was collected in the east central Ozark Mountain Area, with potentially 5 new species added to the state record (Table).

Several specimens have been sent to authorities for identification and verification of species which are believed to be new records for the state.

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